



SAFETY DATA SHEET POLYETHYLENE GLYCOL 4000 REVISION 5, DATE 15 JUN 22

1. IDENTIFICATION

| | |
|----------------------------|--|
| Product Name | Polyethylene glycol 4000 |
| Other Names | Ethylene glycol, homopolymer; Ethylene oxide, homopolymer; PEG-4000; Polyoxyethylene ether |
| Uses | Solubilising agent, Moisturiser. |
| Chemical Family | No Data Available |
| Chemical Formula | (C ₂ H ₄ O) _n H ₂ O |
| Chemical Name | Polyethylene glycol |
| Product Description | No Data Available |

Contact Details of the Supplier of this Safety Data Sheet

| Organisation | Location | Telephone |
|-------------------------|--|-----------------|
| Redox Ltd | 2 Swettenham Road Minto NSW 2566 Australia | +61-2-97333000 |
| Redox Ltd | 11 Mayo Road Wiri Auckland 2104 New Zealand | +64-9-2506222 |
| Redox Inc. | 3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA | +1-424-675-3200 |
| Redox Chemicals Sdn Bhd | Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia | +60-3-5614-2111 |

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

| Organisation | Location | Telephone |
|----------------------------|--------------|--|
| Poisons Information Centre | Westmead NSW | 1800-251525 131126 |
| Chemcall | Australia | 1800-127406 +64-4-9179888 |
| Chemcall | Malaysia | +64-4-9179888 |
| Chemcall | New Zealand | 0800-243622 +64-4-9179888 |
| National Poisons Centre | New Zealand | 0800-764766 |
| CHEMTREC | USA & Canada | 1-800-424-9300 CN723420 +1-703-527-3887 |

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



Globally Harmonised System

| | |
|------------------------------|--|
| Hazard Classification | NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) |
| Signal Word | None |

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

| | |
|---------------------------------------|---|
| Dangerous Goods Classification | NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) |
|---------------------------------------|---|

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

| Chemical Entity | Formula | CAS Number | Proportion |
|---------------------|---|------------|-------------|
| Polyethylene glycol | (C ₂ H ₄ O) _n H ₂ O | 25322-68-3 | >99 - 100 % |

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

| | |
|--|---|
| Swallowed | IF SWALLOWED: Rinse mouth with water, then give a glass of water to drink. Do not induce vomiting. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person. |
| Eye | IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention. |
| Skin | IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention. |
| Inhaled | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. |
| Advice to Doctor | Treat symptomatically. |
| Medical Conditions Aggravated by Exposure | No information available. |

5. FIRE FIGHTING MEASURES

| | |
|---|--|
| General Measures | If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. |
| Flammability Conditions | Combustible solid; may burn but does not ignite readily. |
| Extinguishing Media | Use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction. |
| Fire and Explosion Hazard | Flame might be invisible in daylight. |
| Hazardous Products of Combustion | Fire may produce irritating and/or toxic gases, including Carbon oxides. Contain runoff from fire control or dilution water - Runoff may cause pollution. |

Special Fire Fighting Instructions

| | |
|--------------------------------------|--|
| Personal Protective Equipment | Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. |
| Flash Point | >200 °C [Closed cup] |
| Lower Explosion Limit | No Data Available |
| Upper Explosion Limit | No Data Available |
| Auto Ignition Temperature | No Data Available |
| Hazchem Code | No Data Available |

6. ACCIDENTAL RELEASE MEASURES

| | |
|---|--|
| General Response Procedure | Ensure adequate ventilation. ELIMINATE all ignition sources (if dust clouds can occur). Do not touch or walk through spilled material. Slippery when spilt. Avoid accidents, clean up immediately! Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing. |
| Clean Up Procedures | Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal (see SECTION 13). |
| Containment | Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Prevent dust cloud. |
| Decontamination | No information available. |
| Environmental Precautionary Measures | Prevent entry into drains and waterways. If contamination of sewers or waterways has occurred advise local emergency services. |
| Evacuation Criteria | Spill or leak area should be isolated immediately. Keep unauthorised personnel away. |
| Personal Precautionary Measures | Use personal protective equipment as required (see SECTION 8). |

7. HANDLING AND STORAGE

| | |
|------------------|---|
| Handling | Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dust/mist and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. |
| Storage | Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed when not in use - check regularly for spills. Protect containers against physical damage. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). |
| Container | Keep in the original container. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|--------------------------------------|---|
| General | No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m ³ (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m ³ ; TWA = 3 mg/m ³ (respirable dust). |
| Exposure Limits | No Data Available |
| Biological Limits | No information available. |
| Engineering Measures | A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. |
| Personal Protection Equipment | - Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716). |

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side shields; chemical splash goggles.
- Hand protection: Handle with gloves. Recommended: Protective (rubber) gloves.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Protective working clothes and safety shoes.

Special Hazards Precautions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash hands before break and at the end of work. Immediately remove all soiled and contaminated clothing. Keep work environment clean. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------|---|
| Physical State | Solid |
| Appearance | Flake |
| Odour | Low ~ no odour |
| Colour | White |
| pH | 4 - 7 (5% aq.) |
| Vapour Pressure | No Data Available |
| Relative Vapour Density | >1 Air = 1 |
| Boiling Point | No Data Available |
| Melting Point | 54 - 58 °C |
| Freezing Point | No Data Available |
| Solubility | Soluble in water |
| Specific Gravity | No Data Available |
| Flash Point | >200 °C [Closed cup] |
| Auto Ignition Temp | No Data Available |
| Evaporation Rate | No Data Available |
| Bulk Density | No Data Available |
| Corrosion Rate | No Data Available |
| Decomposition Temperature | >250 °C |
| Density | No Data Available |
| Specific Heat | No Data Available |
| Molecular Weight | No Data Available |
| Net Propellant Weight | No Data Available |
| Octanol Water Coefficient | No Data Available |
| Particle Size | No Data Available |
| Partition Coefficient | No Data Available |
| Saturated Vapour Concentration | No Data Available |
| Vapour Temperature | No Data Available |
| Viscosity | No Data Available |
| Volatile Percent | No Data Available |
| VOC Volume | No Data Available |
| Additional Characteristics | No information available. |
| Potential for Dust Explosion | Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. |

| | |
|---|--|
| Fast or Intensely Burning Characteristics | No information available. |
| Flame Propagation or Burning Rate of Solid Materials | No information available. |
| Non-Flammables That Could Contribute Unusual Hazards to a Fire | No information available. |
| Properties That May Initiate or Contribute to Fire Intensity | Combustible solid; may burn but does not ignite readily. |
| Reactions That Release Gases or Vapours | Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides. |
| Release of Invisible Flammable Vapours and Gases | No information available. |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| General Information | No dangerous reactions known. |
| Chemical Stability | Product is stable under normal conditions. |
| Conditions to Avoid | Avoid generating dust. Keep away from heat and sources of ignition. |
| Materials to Avoid | Incompatible/reactive with strong acids and oxidising agents. |
| Hazardous Decomposition Products | Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides. |
| Hazardous Polymerisation | No information available. |

11. TOXICOLOGICAL INFORMATION

| | |
|----------------------------|---|
| General Information | Information on possible routes of exposure: <ul style="list-style-type: none">- Ingestion: No adverse effects expected; however, large amounts may cause nausea and vomiting.- Eye contact: May cause physical discomfort/irritation to the eyes.- Skin contact: May cause slight irritation.- Inhalation: Dust/mist overexposure may cause respiratory irritation. Chronic effects: No information available. |
| Acute | |
| Ingestion | Acute toxicity (Oral): <ul style="list-style-type: none">- LD0, Mouse: 30,200 mg/kg [Supplier's SDS]. |
| Carcinogen Category | None |

12. ECOLOGICAL INFORMATION

| | |
|----------------------------------|---|
| Ecotoxicity | Aquatic toxicity: <ul style="list-style-type: none">- LC50, Fish (Bluegill): >10,000 mg/kg [Supplier's SDS]. |
| Persistence/Degradability | No information available. |
| Mobility | No information available. |
| Environmental Fate | Prevent entry into drains and waterways. |
| Bioaccumulation Potential | No information available. |
| Environmental Impact | No Data Available |

13. DISPOSAL CONSIDERATIONS

| | |
|--|---|
| General Information | Dispose of contents/container in accordance with local/regional/national regulations. |
| Special Precautions for Land Fill | No information available. |

14. TRANSPORT INFORMATION**Land Transport (Australia)**

ADG Code

| | |
|-----------------------------|--|
| Proper Shipping Name | Polyethylene glycol 4000 |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Land Transport (Malaysia)

ADR Code

| | |
|-----------------------------|--|
| Proper Shipping Name | Polyethylene glycol 4000 |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Land Transport (New Zealand)

NZS5433

| | |
|-----------------------------|--|
| Proper Shipping Name | Polyethylene glycol 4000 |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Land Transport (United States of America)

US DOT

| | |
|-----------------------------|--|
| Proper Shipping Name | Polyethylene glycol 4000 |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Sea Transport

IMDG Code

| | |
|-----------------------------|---|
| Proper Shipping Name | Polyethylene glycol 4000 |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| EMS | No Data Available |
| Marine Pollutant | No |
| Comments | NON-DANGEROUS GOODS: Not regulated for SEA transport. |

Air Transport

IATA DGR

| | |
|-----------------------------|---|
| Proper Shipping Name | Polyethylene glycol 4000 |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for AIR transport. |

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

| | |
|---------------------------------------|---|
| Dangerous Goods Classification | NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) |
|---------------------------------------|---|

15. REGULATORY INFORMATION

| | |
|----------------------------|-------------------|
| General Information | No Data Available |
|----------------------------|-------------------|

Poisons Schedule (Aust)

Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code

Not Hazardous

National/Regional Inventories

Australia (AIIC)

Listed

Canada (DSL)

Not Determined

Canada (NDSL)

Not Determined

China (IECSC)

Not Determined

Europe (EINECS)

Not Determined

Europe (REACH)

Not Determined

Japan (ENCS/METI)

Not Determined

Korea (KECI)

Not Determined

Malaysia (EHS Register)

Not Determined

New Zealand (NZIoC)

Listed

Philippines (PICCS)

Not Determined

Switzerland (Giftliste 1)

Not Determined

Switzerland (Inventory of Notified Substances)

Not Determined

Taiwan (NCSR)

Not Determined

USA (TSCA)

Not Determined

16. OTHER INFORMATION

Related Product Codes

POETGL0200, POETGL4008, POETGL4500, POETGL4600, POETGL4601, POETGL4604, POETGL4700, POETGL4701, POETGL4800

Revision

5

Revision Date

15 Jun 2022

Reason for Issue

SDS updated

Key/Legend

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances**atm** Atmosphere**CAS** Chemical Abstracts Service (Registry Number)**cm²** Square Centimetres**CO₂** Carbon Dioxide**COD** Chemical Oxygen Demand**deg C (°C)** Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Fahrenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/l Grams per Litre

HSNO Hazardous Substance and New Organism

IDLH Immediately Dangerous to Life and Health

immiscible Liquids are insoluble in each other.

inHg Inch of Mercury

inH₂O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

lb Pound

LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

ltr or L Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight